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CH2M HILL MEMORANDUM

TO: ALICE FUERST
EPA REGION VII

FROM: NEIL GEITNER *NEIL*
CH2MHILL-DENVER

DATE: 7 JANUARY 1989

SUBJECT: STATUS REPORTS ON CURRENT WORK TASKS:
ALTERNATIVES EVALUATIONS AND BAXTER SPRINGS WORK
PLAN UPDATE DEN 68541.PM

RECEIVED

JAN 09 1989

READ SECTION

This memorandum summarizes the status of the next two deliverables for the Cherokee County site. I am also transmitting with this memo a set of block flow sheets that describe the processes for each of the alternatives which we are evaluating for the upcoming meeting on 17 January 1989 in Kansas City. In each of the two status reports, I discuss the various technical issues that we have encountered in the performance of that task. Basically the tasks are turning out to be more complex than we had first estimated, largely for reasons that only surfaced after we started the analyses needed to develop the outputs. Schedule implications are discussed at the end of each section.

BAXTER SPRINGS WORK PLAN REVISIONS

The Baxter Springs work plan has undergone many revisions to incorporate the knowledge gained through the operable units either completed or being completed at Galena. In your last memo to us a deadline of 6 January 1989 was set for the incorporation the balance of the Galena knowledge gained since the completion of the GW/SW OUES into the RI work plan and add a FS component to the currently RI only work plan. The deliverable is to be transmitted to the PRP group for their consideration to conduct the actual studies identified in the work plan.

In the intervening period we received from EPA headquarters the latest revised(Interim Final) document(dated October 1988)for planning and performing RI/FS studies at CERCLA sites. Our review of this document indicates that several areas need to be updated and new sections prepared to bring the current work plan(which was prepared prior to the August guidance document which predated the latest document). In summary the current work plan is two guidance documents out of date. Since the outputs of the work plan will be compared to the latest guidance requirements, we feel that it is prudent to do the necessary changes now before the document is transmitted to the PRP group. Otherwise, major changes could be required after the PRP group has started their analytical work or work planning.

I trust that you will agree with this approach. The anticipated

delay to perform the rework is not major. We should be able to bring the revised work plan to the 17 January meeting.

ALTERNATIVES ANALYSIS

At the December 13th meeting, it was agreed that a reassessment of the now expanded list of alternatives(four) for the Galena GW/SW OUES was needed. This assessment was to be in the form of revised cost estimates together with an updated alternatives analysis and comparison table similar to the table in Chapter 8 of the GW/SW OUES.

As with the Baxter Springs work plan, we feel that this assessment should be performed in conformance with the new guidance. We propose to use Table F-1 from the new guidance to prepare the detailed analysis output. The four processes that we agreed to evaluate are:

- o Alternate(PRP) alternative
- o Modified PRP alternative
- o Milling process without chat(revised from the OUES)
- o Revised milling process including chat
- o No action

While developing the flow sheets for the above alternatives, two permutations to these alternatives arose that seem to make sense to evaluate along with the above alternatives. These permutations are:

- o Evaluating the PRP and modified PRP alternatives for both one and two year construction durations
- o Adding a field characterization(via the XRF) process to the revised milling process to reduce the amount of chat that is run through the milling and screening process

In the first case we want to test the cost variances associated with the duration of this largely cut and fill operation. We will also be developing cost parameters to our baseline for the PRP alternative. These costs may differ considerably from the costs presented by the PRPs.

In the latter case, it should be noted that the milling alternative with and without chat will produce tailings passing the EP toxicity test so these alternatives should be acceptable from a RCRA perspective. For the other alternatives where metals recoveries are not included(i.e. there is no milling) the materials being moved and placed will likely fail the EP toxicity test but may still be acceptable to the Agency based on the

action being included under the scope of the Bevill amendment. Thus, the expanded array of alternatives may give the Agency some flexibility with regard to the as yet to be determined, RCRA policy decision.

The latter process has the additional advantage of handling and moving only the chat that would be projected to flunk the EP toxicity test and leaving the balance of the chat in place. This process change could assist with the implementation of the remedy by mitigating to some extent the contention by some of the locals that the chat is a resource for which they should be compensated.

As we have proceeded with this work, we have prepared block flow sheets for the now five alternatives defining the processes that we are evaluating. We are transmitting these to you for review with this memo.

The package we are preparing for you for next week will have the following elements:

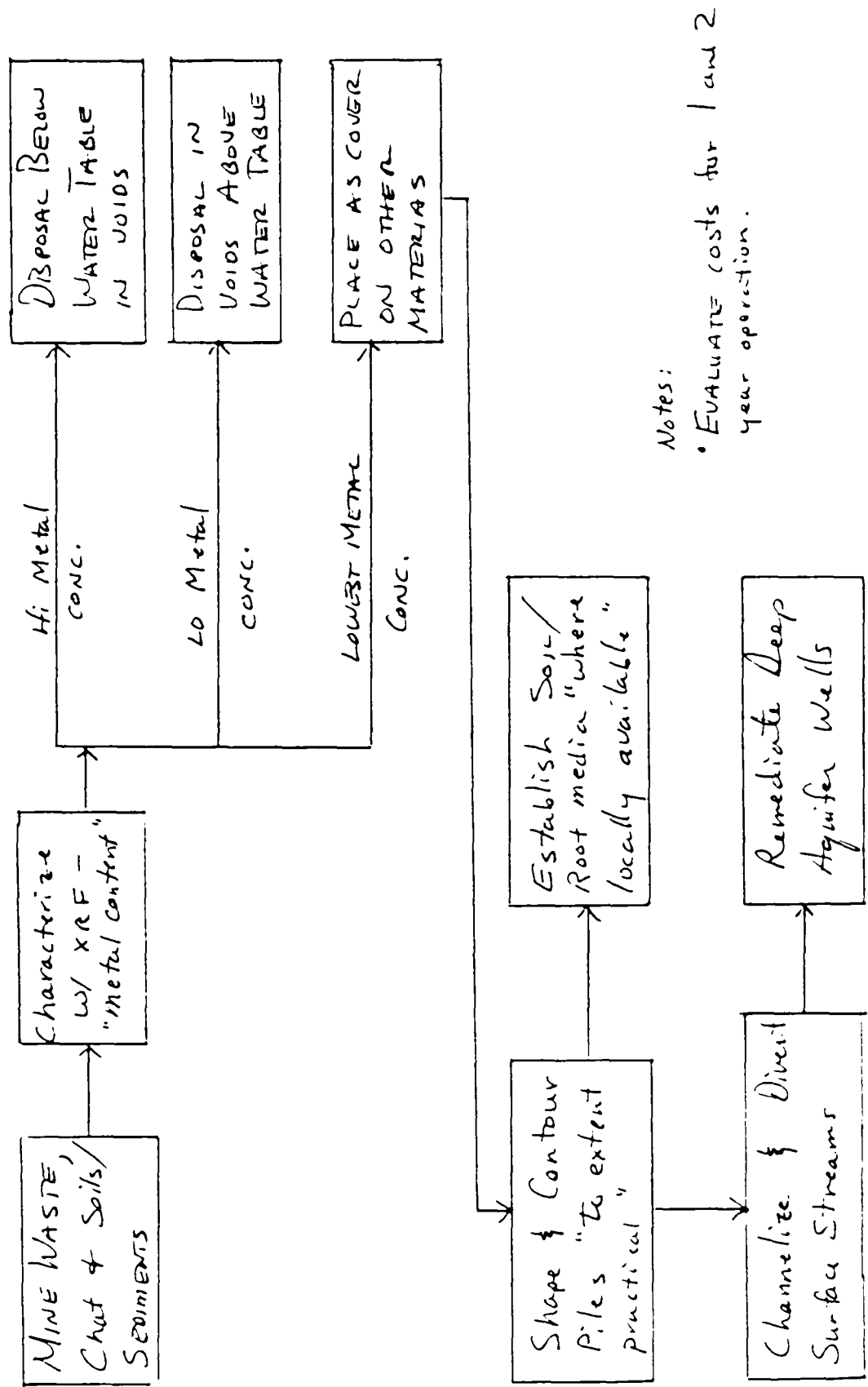
- o Transmittal letter
- o Introduction section documenting the purpose
- o Process descriptions, flow sheets and assumptions
- o Table similar to Table F-1 from the October guidance
- o Revised costs including cash flows but without present worth analyses--these will help Kansas determine their matching requirements
- o Supporting information(final only)
 - backup laboratory analyses
 - post FS field work chronology and rationale
 - analyses of recent PRP submittals
 - backup technical details and costs sheets

As we discussed on the phone on 5 January, this transmittal will take us a little longer than we initially anticipated and will be sent to you later next week. We have set a target date of 12 January to transmit it in draft form to you. This timing will still give you a few days to review the evaluations before the 17 January meeting.

cc: Black, May, Nickelson



PRP ALTERNATIVE FLOWSHEET

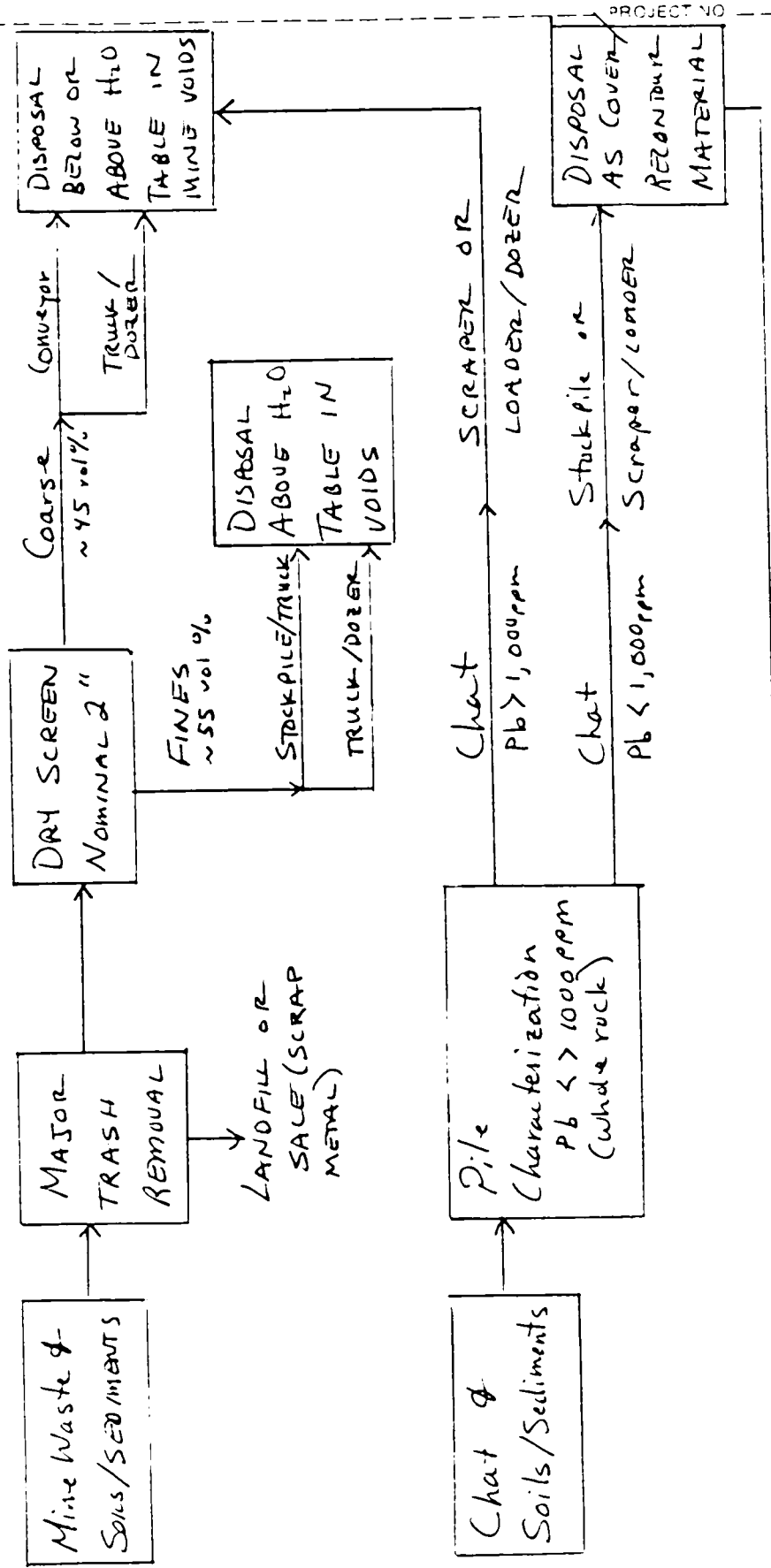


Notes:

- Evaluate costs for 1 and 2 year operation.

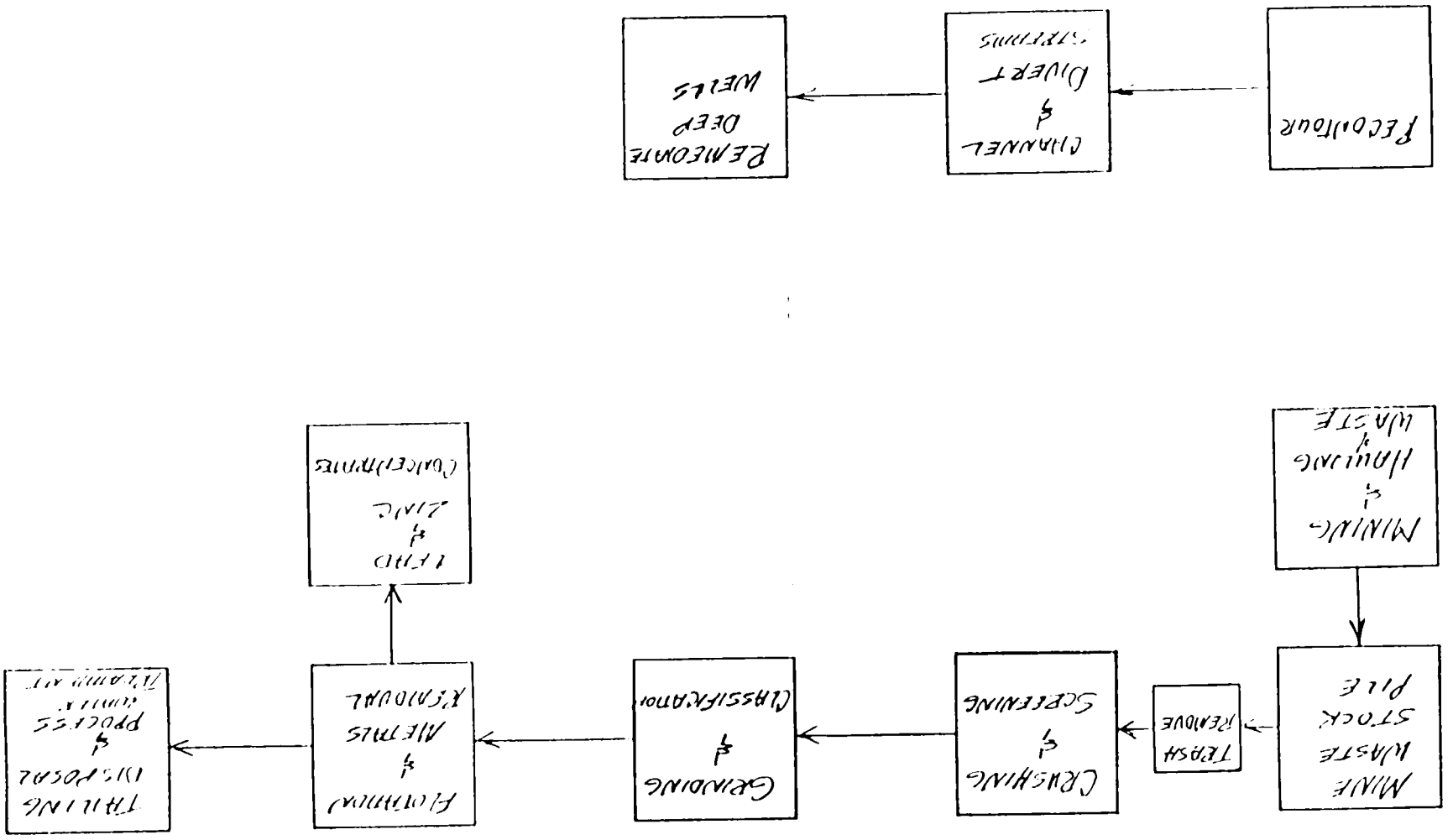
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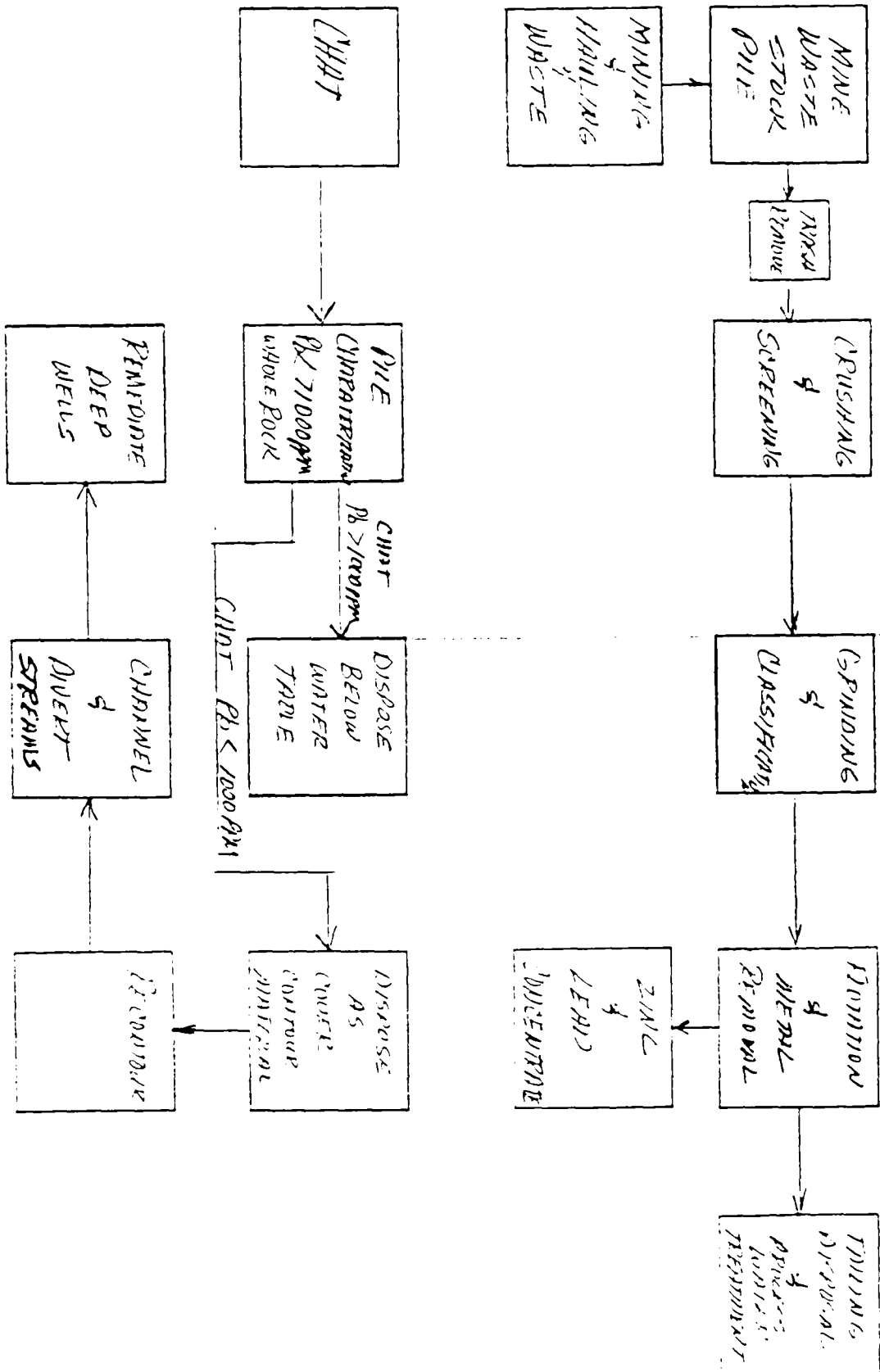
MODIFIED PRP ALTERNATIVE FLOWSHEET



NOTES:

- EVALUATE COSTS FOR 1 AND 2 YR. OPERATION.
- MINE WASTE FINES CONSIDERED GEOCHEMICALLY ACTIVE RELATIVE TO CHAT / COARSE WASTES
- CLEAN CHAT COVERS DOES NOT MEET RCRA REQUIREMENTS.







SUBJECT PROCESS FLOW SHEET

BY N.M.G.

DATE 7 JAN 73

MINE WASTE TREATMENT WITH CHAT

SHEET 1 OF 1

CHAT FIELD CHARACTERIZED PRIOR TO MOVING

PROJECT NO DEN 67900-1

